REMARKS

Double Patenting Rejection

The Examiner has rejected claims 1, and 3-29 under obviousness-type double patenting as being unpatentable under claims 1-31 of U.S. Pat. No. 6,143,247. Applicant has filed a terminal disclaimer herewith, and therefore respectfully requests that the double patenting rejection be withdrawn.

Rejections under 35 U.S.C. §§ 102 and 103

In the Office Action dated May 5, 2004, the Examiner rejected claims 1, 2, 5-7, and 29 under 35 U.S.C. § 102(b) as being anticipated by Schnipelsky et al. (U.S. 5,229,297). The Examiner further rejected claims 1, 3-23, 27, and 29 under 35 U.S.C. § 102(e) as being anticipated by Mian et al. (U.S. 6,319,469).

Claims 1, 3, 6, 8, 9-11, 17, 18, and 29 are also rejected under 35 U.S.C. § 103(a) as being unpatentable over Cathey et al. (U.S. 5,399,486) in view of Mian.

For the reasons given below, Applicant respectfully submits that none of the cited references teaches the invention instantly claimed, and that the references taken alone or in combination fail to disclose, teach, or even suggest the presently claimed invention. Applicants respectfully ask the Examiner to withdraw these rejections in light of the considerations set forth below.

Schnipelsky discloses an apparatus for using PCR technology to amplify and detect DNA. PCR technology involves denaturing and replicating DNA strands, recognized in the art as molecules. In contrast, the instantly-claimed invention is directed to analyzing particulates, such as cells, which are orders of magnitude larger and have different fluid flow and other physicochemical properties than the DNA molecules manipulated by the apparatus described

in the Schnipelsky reference. The instant claims positively recite an "apparatus for detecting a particulate in a fluid" comprising "a detection chamber comprising an area *that is coated with a specific binding reagent that specifically binds to the particulate to be detected*"; the Schnipelsky reference does not teach specific binding to a *particulate* (such as a cell). Further, the pending claims recite that in the instantly claimed apparatus "a *particulate* specifically bound to the detection chamber is specifically bound to the specific binding reagent and is detected thereupon." These features and limitations are not found in the Schnipelsky reference, and Schnipelsky in fact does not disclose each and every feature of the present invention. Thus, Schnipelski cannot anticipate the pending claims.

Likewise, the Mian patent does not anticipate the instantly-pending claims. Pending Claim 1 recites that the claimed apparatus comprises "a detection chamber comprising an area that is coated with a specific binding reagent that specifically binds to the particulate to be detected." Mian fails to disclose or suggest the detection chamber being coated with a specific binding reagent. Therefore, Mian fails to disclose each and every feature of the present claims, and does not anticipate them. Applicants thus respectfully request that the Examiner withdraw this ground of rejection.

Furthermore, the Cathey reference does not disclose, suggest, or render obvious each and every element of the claims. Cathey discloses a diagnostic unit for optical determination of an analyte. However, Cathey fails to specifically mention detection of a *particulate*, such as a cell. In addition, Cathey fails to disclose "a detection chamber comprising an area *that is coated with a specific binding reagent that specifically binds to the particulate to be detected.*" The Mian reference cannot remedy this deficiency, for as we have seen above such a detection reservoir is not disclosed by the Mian reference. Thus,

the combination of the Cathey and Mian references does not render obvious the instantly-claimed invention, since neither alone nor in combination do these references teach, suggest or provide motivation to the skilled worker to achieve the claimed invention with any reasonable expectation of success and the lack of inventive effort and skill.

Concerning the Mian reference, Applicants respectfully inform the Examiner that the assignee listed on the face of the Mian patent is incorrect. In fact, the assignee of the Mian patent was originally Gamera Biosciences Corporation, from which the current real party in interest, Tecan Trading AG, acquired all right, title and interest. Applicants are diligently attempting to correct the assignment record in this regard. The assignees listed on the face of the patent held merely a security interest in the patent, in consideration of which Gamera obtained a loan in furtherance of its business. This loan has been repaid, and the security interest should have been released; Patent and Trademark Office records indicate that the security interest improperly remains. Applicants are also attempting to correct this situation.

As a consequence, therefore, the Mian patent is commonly-owned with the instant application, and is unavailable as prior art to support the asserted rejection on §103 grounds. MPEP § 706.02(l)(1). Applicants respectfully contend, as set forth above, that the combination of the Cathey and Mian references does not render their claimed invention obvious. Without Mian, the deficiencies of Cathey are not cured and the Action thus fails to set out a *prima facie* case of obviousness.

Applicants thus respectfully contend that rejection under 35 U.S.C. §103 is not supported by the cited art, and request that the Examiner withdraw these grounds of rejection.

CONCLUSION

In view of the foregoing, Applicants respectfully contend that all conditions of patentability have been met, and request that all of the rejections of the pending claims 1-29 be withdrawn.

Applicants hereby earnestly solicit an early Notice of Allowance. If for any reason, the application is not considered to be in condition for allowance on the next Office Action and an interview would be helpful to resolve any remaining issues, the Examiner is requested to contact the undersigned attorney at (312) 913-0001.

Respectfully submitted,
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